

DOCKET NO. 2757.2005-000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Declaration for Patent Application

[ ] Supplemental (37 C.F.R. §1.67)

As a named inventor, I hereby declare that:

My residence, mailing address and citizenship are as stated next to my name;

I believe I am the original, first and sole inventor (if only one name is listed) or an original, first and joint inventor (if plural names are listed in the signatory page(s) commencing at page 2 hereof) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Light Emitting Diode Assembly for an Illuminated Sign

the specification of which (check one)

[ ] is attached hereto.

[ X ] was filed on August 27, 2003 as United States Application Number 10/649,598.

[ ] was filed on [PCT Filing Date] as PCT International Application No. [PCT Appl'n No.] [OPTION and assigned United States Application No. [ ]].

[ ] and was amended on [ ] (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. §1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119 or 365 of any foreign application(s) for patent or inventor's certificate, or of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed:

<u>Prior Foreign Application(s)</u>			Priority Not Claimed	Certified Copy Filed? YES NO	
<u>2003-14096</u> (Number)	<u>Korea</u> (Country)	<u>07 May 2003</u> (Day/Month/Year filed)	[ ]	[ X ]	[ ]
<u>2003-21010</u> (Number)	<u>Korea</u> (Country)	<u>03 April 2003</u> (Day/Month/Year filed)	[ ]	[ X ]	[ ]
<u>                    </u> (Number)	<u>                    </u> (Country)	<u>                    </u> (Day/Month/Year filed)	[ ]	[ ]	[ ]

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

-----  
Full name of sole

or first inventor Sun-Tai KIM

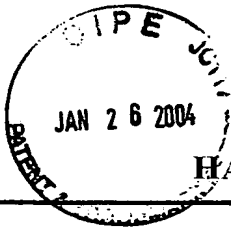
Inventor's Signature Kim, Sun Tai Date December 1, 2003

Residence 103-1301 Hana Apt., 362 Galsan 2-dong Bupyeong-gu Incheon

403-082 Korea

Citizenship Republic of Korea

Mailing Address Same  
=====



HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

**POWER OF ATTORNEY OR  
AUTHORIZATION OF AGENT AND  
CORRESPONDENCE ADDRESS**

Application Number	10/649,598
Filing Date	August 27, 2003
First Named Inventor	Sun-Tai KIM
Confirmation Number	not assigned
Group Art Unit	not assigned
Examiner Name	not assigned
Attorney Docket Number	2757.2005-000

Title Light Emitting Diode Assembly for an Illuminated Sign

I/We hereby appoint

☒ the attorneys/agents associated with **Customer No. 021005**

☐ Practitioner(s) named below:

as my/our attorneys/agents to prosecute the application identified above, including any continuation or divisional applications thereof, and to transact all business in the United States Patent and Trademark Office connected therewith.

The correspondence address for the above-identified application is:

☒ Customer Number 021005

Hamilton, Brook, Smith & Reynolds, P.C.

530 Virginia Road

P.O. Box 9133

Concord, Massachusetts 01742-9133

☐ Other

Please direct all telephone calls and facsimiles to:

Name Leo R. Reynolds, Esq. Tel. No. 978-341-0036 Fax No. 978-341-0136

I am the:

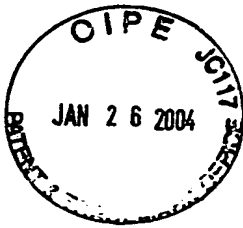
☐ Applicant/Inventor.

☒ Authorized representative of the Assignee, ATTO Co., Ltd., of the entire interest. See 37 C.F.R. § 3.71. A Statement under 37 C.F.R. § 3.73(b) is enclosed.

☐ Authorized representative of the Assignee, [ ], together with [ ], of the entire interest. A Statement under 37 C.F.R. § 3.73(b) is enclosed.

**SIGNATURE of Applicant or Assignee of Record**

Name & Title	ATTO Co., Ltd.
Signature	Sang Young Moon representative
Date	1st Dec 2003



Docket No. 2757.2005-000

STATEMENT UNDER 37 C.F.R. § 3.73(b)

Applicant: ATTO Co., Ltd.  
Application No.: 10/649,598 Filed: August 27, 2003  
For: Light Emitting Diode Assembly for an Illuminated Sign

ATTO Co., Ltd., a company  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is

- A. ☒ the assignee of the entire right, title and interest in the patent application identified above; or  
B. ☐ an assignee together with ☐ of the entire right, title and interest in the patent application identified above.

The right, title and interest of the above-named assignee in the patent application identified above is established by virtue of:

- A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s) of the patent application identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Date: 1st Dec. 2003

Name: Sang Young Moon

Title: representative

Signature: S. Y. Moon

사 외 비  
(CONFIDENTIAL)

수신 : 남앤드남국제특허법률사무소      직무발명 신고서

( 수 신 )

( 발 신 )


관 리 번 호 : 20030226  
 신 고 일 자 : 2003. 2. 30.  
 특허 담당자 : 이 윤정  
 사무소담당자 : 남 태욱


발명의 명칭	발명내용을 가장 적절하게 표현할 수 있도록 간단 명료하게 함축적으로 기재  엘이디를 이용한 간판용 조립체
발명의 요지	본 발명의 요지를 구성 및 효과를 중심으로 함축적으로 기재(~하게 구성함으로써, ~하기 위한 것임)  LED를 MODULE화하여 간판 및 SIGN물에 손쉽게 설치하고 AC/DC TYPE으로 모듈화할 수 있는 발명에 관한 것입니다.

하기 발명자 전원은 특허법 제39조 및 제40조의 규정에 의거한 당사의 직무발명보상규정에 따라 본 발명(고안)에 대하여 특허받을 수 있는 권리를 아토(ATO CO., LTD)에 양도합니다.

대표발명자 : (성명) 김 선 태      *Kim Sun Tai*

발명자	성명	소속	직위	사번	TEL.	주민등록번호	주소	서명
	(한)김 선태	팅	부사장		031-499-4321	661206-1394526	인천광역시 부평구 갈산2동 362 하나 아파트 103동 1301호	<i>Kim Sun Tai</i>
	(영)KIM, SUN TAE							
	(한)	팅				-		
	(영)							
	(한)	팅				-		
	(영)							
	(한)	팅				-		
	(영)							

(주의) 아래에 해당사항 있는 경우, 해당란에 CHECK하시고, 연구관리팀에 확인 후 발명자 기재 요망!

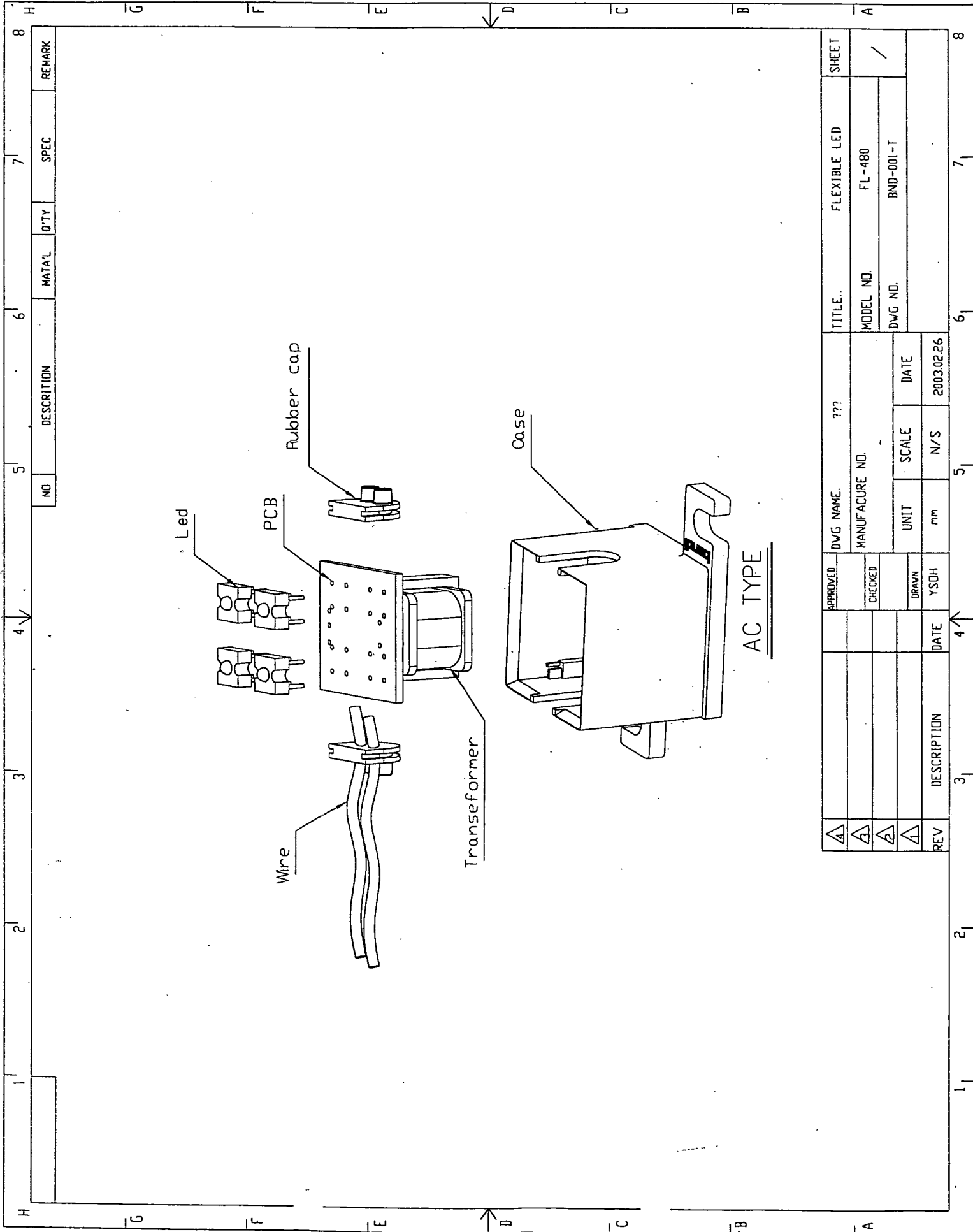
- ☐ 본 발명에 기여한 자를 특정하기 곤란하거나, 발명자가 과다한 경우
- ☐ 본 발명에 대한 사외 발명자가 존재하는 경우
- ☐ 본 발명의 권리귀속에 대한 외부기관과의 계약관계가 존재하는 경우

종 류	<input type="checkbox"/> 특허(실용신안) <input type="checkbox"/> 의장	적용여부	<input type="checkbox"/> 차종적용 (차종명: ) <input type="checkbox"/> 기술개발과제 (과제명: ) <input type="checkbox"/> 미적용 <input type="checkbox"/> 기타 ( )
발명자의 관련 출원	출원번호 : (발명명칭: )		
관련 선행기술	<input type="checkbox"/> 당사/타사제품 참조한 개량발명 (회사명: ) <input type="checkbox"/> 선행특허 참조한 개량발명 (특허번호: ) <input type="checkbox"/> 문헌 등 참조한 개량발명 <문헌첨부> (문헌명: )	기술개발단계	<input type="checkbox"/> IDEA착상단계 <input type="checkbox"/> 적용검토중 <증빙자료: 설계구상서> <input type="checkbox"/> 적용예정 <증빙자료: PROTO도면> (PART NO.: ) <input type="checkbox"/> 적용(가능)상태 <증빙자료: 양산도면> (PART NO.: )

사내외 최선행 기술과의 비교	<input type="checkbox"/> 절대우위 <input type="checkbox"/> 상당우위 <input type="checkbox"/> 약간우위 <input type="checkbox"/> 동등수준	제품화 계획	<input type="checkbox"/> 현PROJECT 적용 <input type="checkbox"/> 차기PROJECT 적용 <input type="checkbox"/> 추후 검토대상 <input type="checkbox"/> 계획 없음
타사의 회피설계 난이도	<input type="checkbox"/> 불가 <input type="checkbox"/> 상당곤란 <input type="checkbox"/> 약간곤란 <input type="checkbox"/> 용이		<input type="checkbox"/> 발견용이 <input type="checkbox"/> 발견곤란 (확인방법: )
타사적용 가능성	<input type="checkbox"/> 큼 <input type="checkbox"/> 상당있음 <input type="checkbox"/> 약간있음 <input type="checkbox"/> 미약	타사침해발견 난이도	<input type="checkbox"/> 발견용이 <input type="checkbox"/> 발견곤란 (확인방법: )
원가절감효과 (기존사양대비)	<input type="checkbox"/> 절감규모 큼 <input type="checkbox"/> 약간절감 <input type="checkbox"/> 기존과 비슷 <input type="checkbox"/> 원가상승	출원여부에 대한 의견	<input type="checkbox"/> 출원 <input type="checkbox"/> 출원 불필요 (사유: )
품질개선효과 (기존사양대비)	<input type="checkbox"/> 큼 <input type="checkbox"/> 상당있음 <input type="checkbox"/> 약간있음 <input type="checkbox"/> 미약	외국출원 필요성	<input type="checkbox"/> 국내출원만 <input type="checkbox"/> 외국출원 필요 (국가명: )
성능향상효과 (기존사양대비)	<input type="checkbox"/> 큼 <input type="checkbox"/> 상당있음 <input type="checkbox"/> 약간있음 <input type="checkbox"/> 미약	긴급출원 필요성	<input type="checkbox"/> 필요 (사유: ) <input type="checkbox"/> 불필요
고객 흡인력	<input type="checkbox"/> 큼 <input type="checkbox"/> 상당있음 <input type="checkbox"/> 약간있음 <input type="checkbox"/> 미약	발명자 결정은 올바른가?	<input type="checkbox"/> 예 <input type="checkbox"/> 아니오
기타의견			

특허성 유무	<input type="checkbox"/> 있음 <input type="checkbox"/> 미약 <input type="checkbox"/> 없음	연구관리팀 의견란	
권리범위	<input type="checkbox"/> 넓게 작성 <input type="checkbox"/> 비교적 협소 <input type="checkbox"/> 매우 협소	외국출원여부	
선행기술조사 충실도	<input type="checkbox"/> 충실히 수행 <input type="checkbox"/> 양호 <input type="checkbox"/> 추가조사필요		
내용 충실도	<input type="checkbox"/> 양호 <input type="checkbox"/> 내용보충필요 <input type="checkbox"/> 내용파악불가		
특허활용 가능성	<input type="checkbox"/> 적극적 권리행사대상(침해 감시, 매각, LICENSING 등) <input type="checkbox"/> 방어적 출원대상(당사실시 확보) <input type="checkbox"/> 활용 곤란		
출원여부	<input type="checkbox"/> 특허출원 <input type="checkbox"/> 실용신안출원 <input type="checkbox"/> 의장출원 <input type="checkbox"/> 출원보류 (사유: △기재사항불비      △내용보충필요 △내용재작성 필요      △특허성 없음 △미완성 발명      △선행기술조사 미흡 △침해발견 곤란      △출원이익 적음 △기타)	기타 의견	
발명자결정	<input type="checkbox"/> 문제없음 <input type="checkbox"/> 확인후 수정필요		





REV	DESCRIPTION		DATE	YSDH	UNIT		SCALE	DATE	DWG NAME		???	TITLE..	FLEXIBLE LED	SHEET
					mm		N/S		MANUFACTURE NO.			MODEL NO.	FL-480	/
												DWG NO.	BND-001-T	



**CONFIDENTIAL**

To: Nam & Nam  
World Patent & Law Firm  
(To)

**EMPLOYEE INVENTION DECLARATION**

(From)

				Control No.:	20030226				
				Filing Date:	Feb. 30, 2003 [sic]				
				Patent Representative:	Youn-jung Lee				
				Office Manager:	Tai-uk Nam				

Title of the Invention	Write briefly and conclusively so that the details of the invention are expressed most appropriately. Assembly for sign applications based on LED
Key Point of the Invention	Write the key point of the invention conclusively centering on its embodiment and effect (For example, configured for ..., to achieve...) Deals with an invention that allows easy installation of an AC/DC type assembly based on LED modularization in a signboard or a sign and modularization.

All inventors below transfer the right to acquire a patent on this invention (design) to Atto Co., Ltd. pursuant to our compensation according to the Employee Invention Regulations pursuant to the provisions of Korea Patent Act Articles 39 and 40.

Representative Inventor: (Name) Sun-tae Kim <signature>

	Name	Company	Position	Employee No.	TEL	Resident Reg. No.	Address	Signature
INVENTOR	(Korean) Kim Sun Tae	Team	Vice President		031-499-4321	661206-1394526	Hana Apt. 103-1301, 362 Kalsan-2-dong, Bupyeong-ku, Incheon Metropolitan City	<Signature>
	(English) Kim, Sun Tae							
	(Korean)	Team						
	(English)							
	(Korean)	Team						
	(English)							
	(Korean)	Team						
	(English)							
	(Korean)	Team						
	(English)							
	(Korean)	Team						
	(English)							

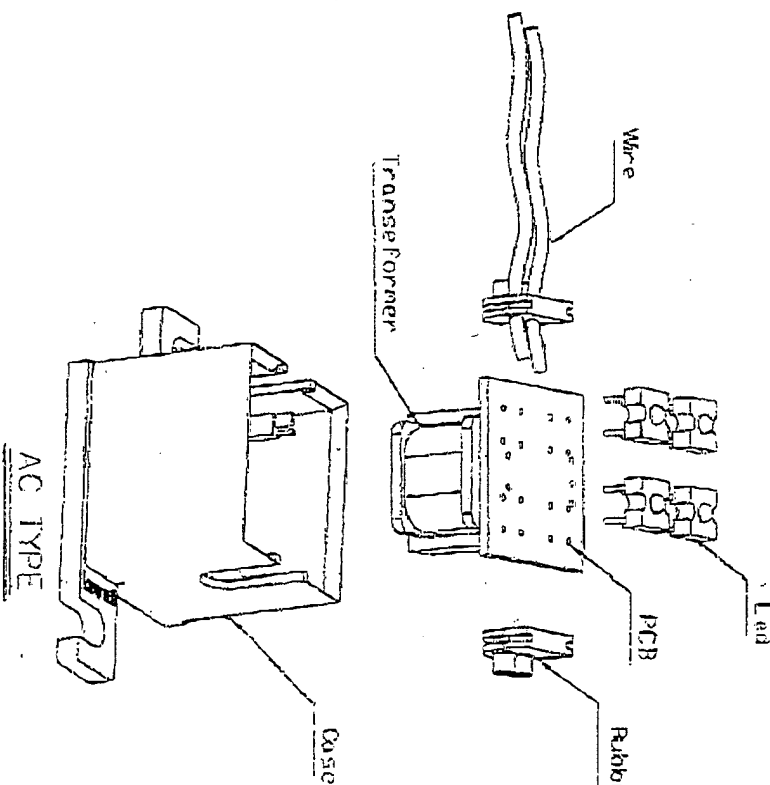
(Note) Check any applicable items below, check with the Research Management Team, and write in inventor(s):

- ☐ It is difficult to identify person(s) who contributed to this invention or there are too many inventors.  
☐ There exist external inventor(s) for this invention.  
☐ There exists an agreement with an external organization in regard to its right to this invention.

Type	<input type="checkbox"/> Patent (Utility Model) <input type="checkbox"/> Design	Application	<input type="checkbox"/> Automobile model application (Automobile Model: ) <input type="checkbox"/> Technical development task (Task: ) <input type="checkbox"/> No application <input type="checkbox"/> Other ( )
Related Application of Inventor	Application No.: (Invention Title)		
Related Prior Art	<input type="checkbox"/> Improved invention based on our / other company products (Company: ) <input type="checkbox"/> Improved invention relative to prior patents (Patent No.: ) <input type="checkbox"/> Improved invention based on the literature, etc. <Attach literature> (Reference: )	Technical Development Stage	<input type="checkbox"/> Idea stage <input type="checkbox"/> Application review in progress <Evidenced by: conceptual design> <input type="checkbox"/> Application scheduled <Evidenced by: Proto drawing> (Part No.: ) <input type="checkbox"/> Application (applicable) state <Evidenced by: mass production drawing> (Part No.: )

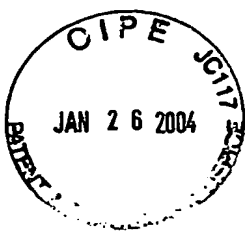
Comparison with the closest prior art internally and externally	<input type="checkbox"/> Absolutely superior <input type="checkbox"/> Slightly superior	<input type="checkbox"/> Significantly superior <input type="checkbox"/> Equal	Product Plan	<input type="checkbox"/> Apply current project <input type="checkbox"/> Apply future project <input type="checkbox"/> Future review item <input type="checkbox"/> No plan
Difficulty in avoiding designs by other companies	<input type="checkbox"/> Impossible <input type="checkbox"/> Slightly difficult	<input type="checkbox"/> Significantly difficult <input type="checkbox"/> Negligible		
Potential application by other companies	<input type="checkbox"/> Large <input type="checkbox"/> Slight	<input type="checkbox"/> Significant <input type="checkbox"/> Negligible	Difficulty in detecting infringement by others	<input type="checkbox"/> Easy to detect <input type="checkbox"/> Difficult to detect (Verification method: )
Cost savings effect (compared with existing specification)	<input type="checkbox"/> Large-scale saving <input type="checkbox"/> No change	<input type="checkbox"/> Significant saving <input type="checkbox"/> Cost increase	Opinion on application	<input type="checkbox"/> Application <input type="checkbox"/> Application not required (Reason: )
Quality improvement effect (compared with existing specification)	<input type="checkbox"/> Large <input type="checkbox"/> Slight	<input type="checkbox"/> Significant <input type="checkbox"/> Negligible	Need for foreign applications	<input type="checkbox"/> Domestic application only <input type="checkbox"/> Foreign applications required (Country: )
Performance improvement effect (compared with existing specification)	<input type="checkbox"/> Large <input type="checkbox"/> Slight	<input type="checkbox"/> Significant <input type="checkbox"/> Negligible	Need for urgent application	<input type="checkbox"/> Required (Reason: ) <input type="checkbox"/> Not required
Customer attraction	<input type="checkbox"/> Large <input type="checkbox"/> Slight	<input type="checkbox"/> Significant <input type="checkbox"/> Negligible	Are inventors correct in their opinion?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Other opinion				
Patentability	<input type="checkbox"/> Present	<input type="checkbox"/> Negligible	<input type="checkbox"/> Absent	Opinions of research management team
Scope of rights	<input type="checkbox"/> Wide	<input type="checkbox"/> Narrow	<input type="checkbox"/> Very narrow	Foreign Application
Efforts for prior art survey	<input type="checkbox"/> Faithfully performed survey	<input type="checkbox"/> Good	<input type="checkbox"/> Additional survey required	
Contents	<input type="checkbox"/> Good	<input type="checkbox"/> Need for supplementation	<input type="checkbox"/> Impossible to understand contents	
Patent Utilization	<input type="checkbox"/> Target of aggressive exercise of rights (infringement, monitoring, sales, licensing, etc.) <input type="checkbox"/> Target of defensive application (Must be performed [defended] by our company) <input type="checkbox"/> Utilization difficulty			
Application	<input type="checkbox"/> Patent application <input type="checkbox"/> Design application (Reason: <input type="checkbox"/> Incomplete application <input type="checkbox"/> Re-writing needed <input type="checkbox"/> Incomplete invention <input type="checkbox"/> Difficult to identify infringement <input type="checkbox"/> Other       )			Other Opinions
	<input type="checkbox"/> Utility model application <input type="checkbox"/> Application reserved (Reason: <input type="checkbox"/> Additional explanation required <input type="checkbox"/> No patentability <input type="checkbox"/> Insufficient survey of prior art <input type="checkbox"/> Negligible benefits from application       )			
Inventor Decision	<input type="checkbox"/> No issues <input type="checkbox"/> Amendment needed following verification			





△	289273	DOG NAME	712	MILE	FLEXIBLE LCB	STRET
△		HAIPIU ACQUIRE NO		BRILL NO	TL-480	/
△				DVG PNL	RWD-001-T	
△		BRIDGE				
△		UNIT	SCALE	DATE		
△		TON	N/S	20031226		
DELV	DISCRIPTION	DATE				

NO	DESCRIPTION	QTY	SPEC	REMARK
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STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.27(a))-SMALL BUSINESS CONCERN

DOCKET NUMBER:

Applicant or Patentee: ATTO Co., Ltd.  
Application or Patent No.: 10/649,598  
Filed or Issued: August 27, 2003  
Title: LIGHT EMITTING DIODE ASSEMBLY FOR AN ILLUMINATED SIGN

I hereby state that I am

- ☐ the owner of the small business concern identified below:  
☒ an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF SMALL BUSINESS CONCERN ATTO Co., Ltd.  
ADDRESS OF SMALL BUSINESS CONCERN 302 Sihwa Industrial Complex Jeongwang 2-dong 2-Da Siheung-si  
Gyeonggi-do 429-923 Korea

I hereby state that the above identified small business concern qualifies as a small business concern as defined in 13 CFR Part 121 for purposes of paying reduced fees to the United States Patent and Trademark Office. Questions related to size standards for a small business concern may be directed to: Small Business Administration, Size Standards Staff, 409 Third Street, SW, Washington, DC 20416 or you may call 202-205-6618.

I hereby state that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention described in:

- ☐ the specification filed herewith with title as listed above.  
☒ the application identified above.  
☐ the patent identified above.

If the rights held by the above identified small business concern are not exclusive, each person, concern or organization having rights in the invention must file separate statements as to their status as small entities. No rights to the invention are held by any person who would not qualify as a person under 37 CFR 1.27(a)(1), or by any concern which would not qualify as a small business concern under 37 CFR 1.27(a)(2), or a nonprofit organization under 37 CFR 1.27(a)(3).

Each additional person, concern or organization having any rights in the invention is listed below:

- ☒ no such person, concern, or organization exists.  
☐ each such person, concern, or organization is listed below.

Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities.

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.27(g)(2))

NAME OF PERSON SIGNING Sang Young Moon

TITLE OF PERSON IF OTHER THAN OWNER representative

ADDRESS OF PERSON SIGNING 302 Sihwa Industrial Complex Jeongwang 2-dong 2-Da Siheung-si Gyeonggi-do 429-923 Korea

SIGNATURE S. Y. Moon DATE 1st. Dec. 2003